## RENEWABLE ENERGY SNAPSHOT

Azerbaijan



Empowered lives. Resilient nations.

### **General Country** Information

Population:	9,297,507
Surface Area:	86,600 km <sup>2</sup>
Capital City:	Baku
GDP (2012):	\$68.7 billion
GDP Per Capita (2012):	\$ 7,392
WB Ease of Doing Business:	70

## **Electricity Generating** Capacity 2012

6,452 MW Total Installed Capacity

Solar PV

Installed RE Capacity

4.5 MW

Wind Small Hydro

0.07%

**RF** Share

Installed Renewable Electricity 2.7 0 1.8 n.a. Capacity 2012 in MW **Technical Potential for Installed** 1,500 115,200 4,500 400 **Renewable Electricity Capacity in MW** 

Biomass

Source: WWEA (2013); World Bank (2014); ARES (2013); ECS (2013); EIA (2010); Renewable Facts (2013); Hoogwijk and Graus (2008); Hoogwijk (2004); JRC (2011); and UNDP calculations.

### Key information about renewable energy in Azerbaijan

By incorporating only small hydropower as a renewable energy source, Azerbaijan's utilization of renewable energies, especially compared to its technical wind and solar potential, is just 0.07 percent. Although there are feedin tariffs for wind and small hydropower plants, recent years have seen only a small amount of private investment, with the exception of some pilot wind power plants (ECS, 2013). The lack of investment in renewable energy is mainly due to the limited tariffs, when all investment, operation costs and allowance for a fair investor return are taken into account. Another factor is the monopolistic organized electricity market itself, since the vertical integrated state-owned Azerenerji owns most power generation capacity. But with its State Programme on Poverty Reduction and Sustainable Development 2008–2015, the country aims to privatize the energy sector and create a favourable environment for private investment. The State Agency on Alternative and Renewable Energy Sources

#### Feed-in tariff in Azerbaijan

Eligible Technologies	Tariff applied since 2007 in €/MW-h
Wind	41.48
Small and mini hydro	23.21

Source: ECS (2013) based on the \$/€ exchange rate on 5 March 2014

has been developing a law for renewable energy sources. This was expected to have been adopted by the end of 2013 (ECS, 2013). Large scale projects are currently being developed, for example the 110 MW Pirshakul wind farm and the 25 MW Absheron solar PV park (ECS, 2013). In the World Bank's Ease of Doing Business Index, Azerbaijan is ranked in 70<sup>th</sup> spot. The country performs well in the ease of starting a business indicator (10<sup>th</sup> position) (IFC & World Bank, 2014).

#### Legislation and policy

The State Agency on Alternative and Renewable Energy Sources developed a national strategy on the use of alternative and renewable energy sources in the Republic of Azerbaijan for the 2012–2020 period, which has passed through the Cabinet of Ministers' first procedural revision the and is currently in the process of being endorsed by relevant stakeholders. The targets are a 20 percent reduction in greenhouse gas emission from 1990 levels, increasing the share of renewable energies in energy consumption by up to 20 percent and increasing energy efficiency by 20 percent by 2020 (Republic of Azerbaijan, 2013). This meets the same targets specified in EU Directive 2009/28/EC. According to the erstwhile Ministry of Industry and Energy (now the Ministry of Energy), investment of around \$8.9 billion will be required to meet these targets. Although no feed-in tariffs for solar and biomass plants yet exist and renewable energy is not prioritized in grid access, the Law on Electrical and Heating Power Stations states that renewable energy power plants may receive state funding for solar and wind energy stations up to 100 kW and for small hydropower plants up to 10 MW. Power plants using at least 80 percent of biomass, excluding firewood, are granted the right of unlimited purchase (Article 3). UNDP together with the State Agency on Alternative and Renewable Energy Sources launched the Promoting the Development of Renewable Energy in Azerbaijan project, which will continue until June 2014. It supports Azerbaijan in the construction of a pilot small hydropower plant, in drafting the Law on Renewable Energy in Azerbaijan, in examining the economics of renewable energy in Azerbaijan and in preparing pilot renewable energy projects for biomass, wind and solar sources of power. The draft of the law, On Use of Alternative and Renewable Energy Sources, along with a package of secondary legislative acts are currently being reviewed by the Cabinet of Ministers of Azerbaijan Republic. There is a good likelihood that they will be adopted, because the government recognizes the importance of renewable energy. In 2013, the State Agency on Alternative and Renewable Energy Sources was given a subsidy of \$31 million and was recognized as an entity independent of the Ministry of Energy and Industry (Caspian Information Centre, 2013). With new legal and financial incentives in place, as well as a new government drive to exploit Azerbaijan's considerable renewable energy potential, the prospects for investment in the renewable energy sector are good in the coming years.

# Azerbaijan

Institutions		
Organization	Responsibility	Website
Ministry of Energy	- Responsible for formulating national energy policy and for developing renewable resources	http://mie.gov.az
The Tariff (price) Council	- Regulatory body, responsible for all tariff related issues - Sets retail and generation tariffs	www.tariffcouncil.gov.az
State Agency on Alternative and Renewable Energy Sources	<ul> <li>Prepares state policy, legal acts, regulatory documents and implements state policy for creation and development of renewable energy sources</li> </ul>	www.area.gov.az/
Azalternativenerji	<ul> <li>State-owned limited liability company operating as a renewable energy implementation entity. It will con- duct exploration, design, development, construction, transportation, distribution, and other renewable en- ergy activities</li> </ul>	
Azerenerji	- Vertically integrated, state-owned company respon- sible for most power generation and the transmis- sion infrastructure	www.azenerji.com

Opportunities to finance renewable energy projects in Azerbaijan		
Financing organization	Details	Website
International Finance Corporation (IFC) and Canada Climate Change Program	With a total of \$15 million both organizations will help Azerbaijan Bank Respublika to finance small and medium sustainable energy enterprises.	www.ifc.org/
Green Growth Fund	Provides direct and indirect financing (through finan- cial intermediaries) for small scale renewable energy projects, usually not larger than €50 million.	www.ggf.lu/
European Bank for Recon- struction and Development (EBRD)	Provides renewable energy developers with equity, loans and loan guarantees for projects with good commercial prospects of up to 15 years' duration.	www.ebrd.com/pages/workingwithus/pro jects.shtml
KFW Bank	Finances construction of 80 MVT wind power plants in the Apsheron Peninsula.	www.kfw.de/
Asian Development Bank (ADB)	Provides equity, loans and guarantees for the private sector with clear development impacts as well as a sound rate of return. It signed a grant agreement for \$900,000 of which \$200,000 came from the Finnish government to assess the potential for renewable en- ergy development in the country.	www.adb.org/

# Azerbaijan

Recent projects		
Company	Project	Status
State Agency on Alternative and Renewable Energy Sources	Hybrid power plant in Gobustan Experimental Poly- gon and Training Centre. It provides special training to Azeri workers on implementation of alternative en- ergy technologies, with 5.5 MW installed capacity of hybrid sources: wind, solar and biogas.	Commissioned
State Agency on Alternative and Renewable Energy Sources (SAARES)	Azguntech solar panel producing plant, which pro- duces 120,000 solar panels a year. This number is ex- pected to be doubled by 2015.	Commissioned
Tomen (Japanese)	Installed two wind towers and conducted a feasibil- ity study for a 30 MW wind power plant in Gobustan region.	Commissioned
AREA (Azerbaijan)	Small hydropower plants Goychay-1 with 3 MW and Balakian-1 with 1.5 MW of installed capacity.	Under construction

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